Allotment Assessment
Three Creek #8

I. Name and Number of Allotment

Three Creek #8 Allotment #01070
Permittee: Kip Gould

II. Livestock Use

1. Preference: 797 AUMs (296 summer, 501 fall)
2. Historic Use Range: 725 to 867 AUMs
3. Suspended Preference: 0 AUMs
4. Season of Use: 06/01 to 6/30; 10/01 to 11/30
   (TNR authorizations included grazing use through February 28)
5. Kind and Class of Livestock: 550 cattle (300 summer, 250 fall)
6. Percent Public Land: 100%

III. Allotment Profile

1. The Three Creek #8 Allotment is located in the southern part of the Jarbidge Field Office Area and is located in MUAs 12 and 15. Approximately 15% of the allotment occurs in MUA 12 and 85% occurs in MUA 15. There are four pastures in this allotment: #1 through #4. The current permit was issued March 1, 1995 authorizing 797 AUMs. This permit is valid until February 28, 2005. TNR was authorized in 1998 through 2001 (included in Table 1 figures).
2. Federal Acreage: 4,786
3. MUA Objectives (Jarbidge RMP, 1987):
   - Increase AUMs of forage issued for livestock in MUA-12 from 33,650 to 44,854 by the year 2005 (II-48) and in MUA 15 from 25,098 to 26,466 AUMs (II-56). Three Creek #8 is <1% of MUA 12 and 2.7% of MUA 15; 20-year use was to increase to 927 AUMs. This increase use would result from the availability of additional forage from water developments, brush control and seeding projects and improvement in native range condition (II-3).
   - Maintain 23,518 acres of existing vegetative improvements in MUA 12 and 24,159 in MUA 15 (II-47, II-56).
   - Improve 123,980 acres of lands in poor ecological condition in MUA 12 (II-47) and 58,628 acres in MUA 15 (II-56); Three Creek #8 was determined to have 146 acres in poor condition.
   - Manage big game habitat in MUA 12 to support increased populations of mule deer (50%) and antelope (8%) (II-48).
   - Manage big game habitat in MUA 15 to support increased populations of mule deer in winter (100%) and the rest of the year (29%), and antelope (30%) (II-56).

- Improve 4900 acres of big game habitat by the year 2005 in MUA 15 (II-56).
- Improve 4.7 miles of fisheries habitat and 9.6 miles of riparian habitat by the year 2005 in MUA 15 (II-56).
- Improve sage grouse habitat in MUA 12 (II-48).

4. Key Forage Species:
   - Bluebunch wheatgrass
   - Crested wheatgrass
   - Idaho fescue
5. Grazing System: There is no formal grazing system in this allotment. It has been grazed at the permittees discretion within authorized use levels.

IV. Management Evaluation

The purpose of this evaluation is to determine the allotment's status in meeting the Standards for Rangeland Health and Guidelines for Livestock Management and to renew the grazing permit with management guidelines to meet these Standards.

A. Summary of Studies Data

1. Actual Use

Table 1 shows the actual use from 1990 through 2002.

Table 1. Actual Use

Grazing Season	AUMs
1990	797
1991	797
1992	797
1993	797
1994	795
1995	725
1996	786
1997	795
1998	867
1999	864
2000	863
2001	863
2002	797

2. Climate

Long term water year precipitation (September through June) for Three Creek NOAA Weather Station is 11.45 inches (1940-87) and for the BLM **Three Creek School** rain gauge, the recent nine year's annual average has been 13.4 inches. Table 2 shows the yearly precipitation accumulations for each of the past nine water years at the Three

Creek School station which is fairly representative of this allotment. Also shown is the Yield Index for this site in combination of the data from the Three Creek Weather Station and the BLM rain gauge. The Yield Index is a precipitation-yield relation which provides reliable and effective information for use in comparing annual production yields to what is expected in a normal year. The Yield Index is used in forecasting and adjusting range forage estimates. The Yield Index is a precipitation-yield relation which provides reliable and effective information for use in comparing annual production yields to what is expected in a normal year. The Yield Index is used in forecasting and adjusting range forage estimates.

Table 2 - Water Year Precipitation and Yield Index

Year	BLM Three Creek School (inches)	Yield Index At Three Creek
1993		NA
1994	14.6*	.72
1995	19.3*	2.02
1996	9.2	.74
1997		1.45
1998	17.4*	1.62
1999	13.3	1.27
2000	9.3	.82
2001	12.0	.96
2002	11.5	.99
2003	13.2	1.02

*Above Average Precipitation.

3. Utilization:

Table 3 shows the actual data from sampling at transects in the Allotment.

Table 3 - Utilization Data

Year	Utilization
1998*	2.5%
1999*	2.5%
2000*	2.5%
2001	40%

*Use on crested wheatgrass prior to TNR.

4. Production

Appendix 1 displays the production data that has been collected in the Three Creek 8 Allotment. It shows that 1,821,523 pounds of forage vegetation is produced during a near normal production year. Forage vegetation refers to grasses, and in seeded areas may include alfalfa and sainfoin. The production of forbs and shrubs is not included in this poundage. Considering precipitation data and its relationship to drought, as well as the needs of the watershed and wildlife, it is estimated that 785 AUMs of forage vegetation is available for livestock.

5. Condition and Trend

No long-term study sites have been established and no trend data is available for this allotment, therefore documented vegetative and soil cover trends are virtually unknown.

As for the vegetative conditions in the allotment, the most recent rangeland inventories were conducted in 1983. According to these surveys, approximately 30% of the allotment was delineated as seeding (the northern most pasture), 30% was in excellent condition (the southern most pasture), 5% was in fair condition (the small eastern pasture), and the remaining 35% was in poor condition (the large central pasture). In 2002 production studies were completed in the Allotment. One site within in a native vegetation community was measured for condition based on the Similarity Index presented in the Inventory and Monitoring Technical Reference 1734-7. It rated in late potential natural ecological condition which would be the same a excellent condition as referenced in the Jarbidge RMP EIS. These ratings show an increase in condition since which meets the Jarbidge RMP objective of improving range condition. Table 4a and 4b summarizes this information.

Table 4a – Condition and Trend Evaluation of Native Vegetation Study Sites

1983 Inventory Site	Inventory Site Location	Vegetation Type	1983 Ecological Rating*	2002-03 Production Studies Name/Rating
LH-45(ref)	10S12E16	Artrw/Agcr		
LH-39(ref)	15S09E07	Artrw/Posa3/Agsm	Early	
LH-84(ref)	16S10E14	Artrt/Feid	Mid	
LH-63	16S11E08	Artrv/Feid-Agsp	Early	TC8P-2/PNC

Table 4b – Condition and Trend Evaluation of Seeding Study Sites

1983 Inventory Site	Inventory Site Location	Vegetation Type	1983 Condition Rating*
TH-103	15S11E19	Artrw/Agin-Agcr	Excellent

*Jarbidge RMP referred to Range Condition as: Excellent, Good, Fair and Poor. Since that time these terms have been related to; Potential Natural Community, Late Seral, Mid Seral & Early Seral, respectively. Value terms of excellent, good, fair, poor are only used

as a value rating for areas rehabilitated with *Agropyron cristatum* and *Agropyron intermedium*

The major range sites found within this scattered pasture allotment consist of the following types by pasture:

Northern pasture – Artrw/Agsp, Loamy 10-13”
Large central pasture – Artrv/Agsp-Feid, Loamy 13-16”
Small eastern pasture – Artrt/Feid, Loamy Upland 12-16”, and
Southern pasture – Artrv-Putr/Feid-Agsp, Loamy 13-16”

B. Rangeland Health Assessment

In 2002, rangeland health data was gathered on the Allotment at two ecological sites within native range, and two ranges site within seedings. Rangeland health data was collected per Technical Reference 1734-6, *Interpreting Indicators of Rangeland Health*. The rangeland health data was collected by an interdisciplinary team for the purposes of making a quantitative assessment of the soil/site stability, hydrologic function, and the integrity of the biotic community for the various ecological sites.

Three transects were read at various ecological sites and are identified as TC8-1 to TC8-4R. The “Preponderance of Evidence” based on the three transects, is shown in Table 5. The degree of departure or deviation from the potential ecological site description (None to Slight, Slight to Moderate, Moderate, Moderate to Extreme, or Extreme) is made based on an evaluation of the data. Transect TC8-4R was taken in a reference site.

Table 5 - Preponderance of Evidence

Three Creek 8

Attribute (The sites are considered meeting attributes if not mentioned)		Deviation From Potential				
		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
Soil Site Stability Rationale: Soil surface resistance to erosion is slightly lower than potential for site. (TC8-3). Bare ground is slightly higher than expected for the site (TC8-1, 2, 3). Wind scouring and deposition is apparent, likely occurring after recent wildfire (TC8-3). Some flow patterns were longer than expected, 2-4" pedestals were noted on bluegrass and Idaho fescue, a gully was associated with a jeep trail (TC8-4R).	*Native*					TC8-2, TC8-4R
	Seedings					TC8-1, TC8-3
Biotic Integrity Rationale: Low composition of perennial grasses, perennial forbs and/or annual forbs (TC8-2). Nitrogen fixing legumes in low composition (TC8-2). Bluebunch wheatgrass, Idaho fescue and big sagebrush show slightly more decadence than expected (TC8-2). Low perennial grasses, especially bluebunch, rabbitbrush higher than expected; very low annual production of bluebunch; cheatgrass was widespread and occasionally abundant (TC8-4R). Annual production 50 to 75 percent of potential because of the dominance of less productive species (TC8-3). Cheatgrass and bur buttercup widespread and common in plant community (TC8-3)	*Native*				TC8-2	TC8-4R
	Seedings				TC8-3	TC8-1
Hydrologic Function Rationale: Some flow patterns were longer than expected, 2-4" pedestals were noted on bluegrass and Idaho fescue, a gully was associated with a jeep trail, perennial grasses a little low (TC8-4R).	*Native*					TC8-2, TC8-4R
	Seeding					TC8-1, TC8-3

1. Standard 1 – Watershed

All of the sites assessed were noted to be within none to slight deviation from expected and all indicators were being met. This means that flow patterns were few with slight deposition and surface litter was in place. There was little evidence of plant pedestaling due to water or wind erosion. There was minimal soil crusting and no evidence of a compaction layer. Bare ground was slightly higher than expected, and soil surface resistance to erosion was lower. This was evidenced by wind scour and deposition areas, and reduced soil surface aggregation. This may be in part due to the recent wildfire.

2. Standard 2 - Riparian Zones and Wetlands and Standard 3 - Stream Channel/Floodplain

Stream (year inventoried/ monitored)	Inventory Reach #	Miles	Dominant Vegetation	Functionality Rating	Comments
Three Creek 1998	11.8 – 12.1	0.3	*Poa*/Willow/ Currant/Rose	NF (Non-functioning)	channel is braided; cattle trails are causing erosion and sediment into the creek
Three Creek 1998	12.1 – 12.3	0.2	*Poa*/Willow/ Aspen	FAR (Functioning at risk)	severely downcut in areas and not able to reach floodplain
Three Creek 1998	12.3 – 12.9	0.6	Sedge/*Poa*/ Willow/Aspen	PFC (Proper Functioning condition)	no evidence of rills, livestock trails, or excessive bank erosion

Three Creek segment 11.8 to 12.1 is typically heavily used by livestock. Much of the floodplain and stream banks are grazed to bare ground. These barren areas plus the livestock trails along the creek, supply sediment to the creek. Only where willows are present is the stream bank vegetation comprised of those plants that have roots capable of withstanding high stream flows. The stream channel is not stable laterally and the channel is cutting increasingly wider during high energy flows. Point bars are not re-vegetating. Woody vegetation within the riparian zone, including willows, currant, and rose, have been heavily browsed. Decadent willows are the dominant age class for riparian woody species. Desirable riparian herbaceous species are basically non-existent in this stretch; exotic annuals are present to the water's edge. The stream channel is too wide, too shallow, and consequently, the riparian zone is very minimal. Excessive livestock trampling is largely the cause of the channel braiding.

Three Creek segment 12.1 to 12.3 is downcut approximately two to four feet in some areas, and the width-depth ratio is altered. Flows are quickly flushing down the channel, resulting in a narrowing of the riparian zone. Livestock trailing along the creek, raw cutbanks, and a road dissecting the creek are contributing to degradation of the riparian resource. Stream bank erosion is on the excessive side. The age class of willows and aspens in the area is primarily mature or decadent; very few young willows are present. Upland herbaceous plants comprise most of the species in the riparian zone; a couple of sedge species are present. Woody vegetation provides most of the stream bank protection. The upland herbaceous plants along the stream banks are shallowly-rooted and provide little protection during high flows. Cheatgrass and exotic annual plants are a problem in some areas. Lateral stream movement is more associated with livestock

trampling than with natural stream sinuosity. The stream in this segment typically flows in the subsurface, and may totally dry up by late summer.

Three Creek segment 12.3 to 12.9 is a confined channel and most of this creek is inaccessible to livestock; cattle use in this area is minimal. This portion of the creek usually dries up by the end of summer. This segment contains a lot of large cobbles, boulders, and woody debris, as well as a large amount of woody vegetation (willow, aspen, rose chokecherry, and dogwood), which help anchor the stream banks. There is good representation of all age classes among woody species. Several different species of sedge and rush are occupying the stream banks, although more herbaceous species should be present in greater densities in this system. The herbaceous component present exhibits high vigor and has seedheads. Stream banks are well covered and stable and are able to sustain high stream flows.

3. Standard 4 - Native Plant Communities

Three ecological sites in the allotment were evaluated. Two sites (TC8-2 and TC8-4) are in a native Loamy 13-16" ecological site. Site TC8-1 is in a Loamy 10-13" seeded ecological site, and site TC8-3 is in a 12-16" ecological site which has burned.

Site TC8-3 burned in the mid-1990's. The permittee at that time broadcast seeded some crested wheatgrass. The bulk of the plants present are native. An unburned area in this ecological site was not evaluated. There was 0 percent cover of sagebrush, but 11 percent cover of rabbitbrush. Sagebrush and bitterbrush should have been a greater part of the plant community. The average height of rabbitbrush was 15.3 inches. Thickspike or Western wheatgrass were the most abundant grass (27 percent cover) followed by Sandberg bluegrass and needle-and-thread. Crested wheatgrass contributed 10 percent cover. The average grass height was 10.7 inches. No native forbs were intercepted (hit). Bare ground was 13 percent, whereas biological soil crusts were 1 percent. Exotic annuals, primarily cheatgrass, provided 15 percent cover. Exotic annuals were widespread and locally abundant.

Neither site in the Loamy 13-16" ecological site had been burned. Sagebrush cover was 27 percent and averaged 20.4 inches at TC8-2. At TC8-4 sagebrush cover was 12 percent and 25.4 inches average height. Site 2 had 14 percent cover of rabbitbrush, whereas site 4 averaged 4 percent rabbitbrush. Antelope bitterbrush was absent at site 2 but provided 13 percent cover at site 4. Native perennial grass cover totaled 35 percent (Sandberg bluegrass 17 percent, Idaho fescue 7 percent, bluebunch wheatgrass 5 percent, bottlebrush squirreltail 3 percent, thickspike wheatgrass 2 percent, and ricegrass 1 percent) at site 2 and 49 percent cover at site 4 (Idaho fescue 35 percent, bluebunch wheatgrass 9 percent, Sandberg bluegrass 4 percent, bottlebrush squirreltail 1 percent). Bluebunch wheatgrass should have been the dominant native perennial grass at both sites. The perennial native forb component was 5 percent and 7 percent, respectively. Exotic annuals were present (1 percent cover) at both sites. Bare ground was 16 percent at TC8-2, and 9 percent at TC8-4. Biological soil crusts were similar with 10 percent and 11 percent cover at TC8-2 and TC8-4, respectively. The exotic annual cheatgrass is the only

exotic species recorded as cover. At TC8-2 bur buttercup was noted as being widespread, however, this species did not provide any cover. Exotic species were sparser at site 4.

There is no data on number of deer, elk, or antelope utilizing the habitat in the Three Creek 8 Allotment. The native habitat (aspen stands, mountain shrub lands and sagebrush habitats) are used as fawning habitat and winter cover for antelope, mule deer, and elk. Crucial mule deer winter range is present in the southern portion of the allotment.

4. Standard 5 - Seedings

Sites TC8-1 is an old intermediate wheatgrass seeding. Sagebrush cover was only 6 percent and averaged 23.7 inches in height. Intermediate wheatgrass was the most abundant grass (28 percent cover), followed by Sandberg bluegrass (23 percent). One bluebunch wheatgrass was intercepted (hit). This species, along with Thurber needlegrass, should have been the dominant late seral grasses. Average grass height was 7.4 inches. One percent cover was native forbs (Phlox). Some other native forbs were present, but considered sparse to rare. Bare ground was 17 percent, and biological soil crust cover was 7 percent. Exotic annuals were not hit on transects. Cheatgrass and bur buttercup were widely present, but generally sparse.

5. Standard 6 – Exotic Plant Communities, Other Than Seedings

Not Applicable.

6. Standard 7 – Water Quality

The only perennial surface water in the Three Creek #8 allotment is Three Creek, which basically forms the western boundary of the southern pasture for a length of about one mile. Historically, this 14 mile-long stream has provided a most dependable water source for livestock use on open rangelands for miles around and during the early development stages of the allotment itself. In more recent times, cattle access to this creek and several others in the area, has become more discreet and regulated as individual allotments and pastures were formed. Although cattle still have some access to several segments of this stream, upland water developments and fencing some stream corridors, to form allotment boundaries and pastures, has lessened some of the degrading riparian and water quality impacts associated with cattle use of the past. However, proper functioning conditions (PFC) for much of this particular creek are still a long ways off. See Riparian Standard #2 above. Currently, jeep trails and livestock trailing results in some gullies into Three Creek and are a source of sediment loading down stream. Portions of the stream banks are open and raw, and shallow rooted Kentucky bluegrass does not do a good of job stabilizing banks. These human and cattle impacts directly affect aquatic habitat for much of the redband trout waters downstream.

Regulated of the State's Department of Environmental Quality (DEQ), this agency has identified and nominated the entire length of Three Creek, from its head waters to the confluence at Clover Creek (most of it outside the allotment) as "water quality limited" and is included on the 1996-98 303(d) lists in Hydrologic Unit Code (HUC) #17050102

for concerns of **sediments**, however severity of this concern is rated as low. This creek is included in the current Lower Bruneau River SBA/TMDL.

Although most of the 14 mile Three Creek stream course is not associated with the Three Creek #8 allotment, the BLM has been water quality monitoring different portions of the creek since 1995. Most monitoring has occurred well down channel from this allotment, but at least two years of monitoring has taken place just below the one mile stream segment that abuts the allotment. Data summaries for the years 1998 and 1999 of the water quality sampling for temperatures and other chemical attributes for this portion of the creek can be found in Appendix II.

A brief water quality summary discussion of this upper creek segment concludes that; maximum and minimum daily water temperatures have not exceeded the standard of 22° C and 19° C, respectively, for a cold water biota stream for the two years that were monitored. All other water quality attributes (particularly pH and DO) have been within the State's water quality limits. And for the record, monitoring for a longer period of time, from 1995-2002 in the lower segment of this creek, well below the allotment, concludes that the only real standard NOT being met was the maximum daily temperature limitation. This standard has been exceeded many days during the months of July and August. This is most likely due to the lower flows encountered during the hottest months. And as with the upper segment, all other water quality attributes of the lower segment have been within State limits as well. No biological water parameters have been monitored by the BLM in this creek.

Additionally, there are a few other open waters within the allotment consisting of springs and ponds. The quality of these waters has not been monitored by the BLM. Some water for livestock use comes from creeks on adjacent private lands, is water hauled or is provided by a ground water source (Blick Well) on public land. The quality of this ground water source is not monitored by the BLM, but is presumed to be of good quality for livestock and wildlife consumption since it comes directly from a well.

7. Standard 8 - Threatened and Endangered Plants and Animals

A number of species presently designated as Sensitive are present in the allotment. For the most part, the Three Creek #8 Allotment has not been inventoried for sensitive species. Sensitive species occurrences are frequently noted from incidental observations. BLM haa no information regarding whether or not pygmy rabbits are present or were historically present in this allotment. No bat inventory has been conducted in this allotment. Also a number of wildlife species presently designated as "watch" were present. Watch species are **not** presently designated as Sensitive species, but may be added to the sensitive list in future years. No plants presently on the BLM sensitive plant species list are known to occur in the Three Creek #8 Allotment. Broad fleabane, a species formerly on the Idaho BLM Sensitive list is present. This species is still on the Nevada BLM sensitive species list. It was unknown whether the standard was being met for special status plant species. There was no information available to determine whether livestock grazing management was having a significant impact on sensitive plant species or not. All sensitive or watch species are shown in Table 6.

Table 6 - Idaho BLM Sensitive and Watch species in the Three Creek #8 Allotment

Common Name	Scientific Name	Status	Presence
Greater sage grouse	*Centrocercus urophasianus*	S	C
Mountain quail	*Oreotyx pictus*	S	H
Columbian sharp-tailed grouse	*Tympanuchus phasianellus columbianus*	S	H
Prairie falcon	*Falco mexicanus*	S	C
Loggerhead shrike	*Lanius ludovicianus*	S	C
Brewer's sparrow	*Spizella breweri*	S	C
Sage sparrow	*Amphispiza belli*	S	C
Calliope hummingbird	*Stellula calliope*	S	L
Willow flycatcher	*Empidonax trailii*	S	L
Redband trout	*Onchorhynchus mykiss gairdneri*	S	C
Broadleaf fleabane	*Erigeron latus*	S	C
Swainson's hawk	*Buteo swainsoni*	W	C
Sage thrasher	*Oreoscoptes montanus*	W	C
Brewer's blackbird	*Euphagus cyanocephalus*	W	C
Short-eared owl	*Asio flammeus*	W	L
Western burrowing owl	*Speotyto cunicularia*	W	L
Slickspot peppergrass	*Lepidium papilliferum*	C	L
Status codes: C = FWS Candidate species; S = designated Sensitive species; W = Watch category Presence codes: C = presence confirmed in allotment; L = presence likely in the allotment; H = present historically in the allotment			

Greater sage grouse. This allotment has not been checked for sage grouse leks since an inventory efforts in 1981 and 1987. Two sage grouse leks were present in the allotment and 4 other leks are in close proximity to the Three Creek #8 Allotment. Due to the remote area, there is no recent lek count data for the area. Data for the leks indicate that the populations in the area were in a downward trend. Shrub cover and height were adequate for sage grouse nesting in the native areas. The forb component was diverse at two of native site and contained several sage grouse preferred forbs in adequate numbers. The forb component in the seedings were less diverse and less abundant, however, plants in the *Phlox* genus were the most common native forbs. Sage grouse nesting potentially occurs in areas with adequate shrub cover (10-30%). Plant communities where Sandberg bluegrass, bottlebrush squirreltail, Idaho fescue, and Thurber needlegrass are grazed to 40% use level will not provide adequate residual vegetation for nesting sage grouse at 0.5 miles or more from water. In plant communities dominated by bluebunch wheatgrass a 40% use level will likely provide some areas where residual herbaceous cover will meet sage grouse nesting needs within 0.5 miles of water. Grazing to 50% use on crested or intermediate wheatgrass will reduce residual herbaceous nesting cover for sage grouse at 0.5 miles of more from water.

Table 7 - Numbers of male sage grouse at leks near the Three Creek #8 Allotment for which there is data.

Lek #	# Males	Year of Recent Count	Highest # Males	Year of Count
2O-087	5	1987	20	1981
2O-088	0	1987	18	1981
2O-098	0	1987	5	1981
2O-100	0	1987	40	1981
2O-104	0	2000	12	1981
2O-108			11	1987
2O-109			24	1987

Mountain quail. Mountain quail were historically present in much of the southern portion of the resource area. Mountain quail were known to be present along Flat Creek, about 2 miles west, and were likely historically present in the riparian zone in this allotment.

Columbian sharp-tailed grouse. This species was historically present in the southern portion of the resource area, including this allotment. Suitable habitat remains in the allotment. Recently, sharp-tailed grouse were re-introduced by the Idaho Department of Fish & Game to an area about 10 miles east of the allotment. As the sharp-tailed grouse population grows, it is expected that they will re-occupy the suitable habitat in the allotment.

Prairie falcon. Prairie falcons have been observed foraging in the allotment, however, no nest sites have been confirmed. A number of cliffs and rock outcrops, which provide suitable nesting sites for this species, are present primarily along portions of Three Creek, Ross Pasture Creek, and Higgins Draw.

Loggerhead shrike. Loggerhead shrikes were noted perched along the fences in the area. There have been other scattered observations of this species in the general area.

Brewer's sparrow and sage sparrow. Both species are known to be present in Wyoming big sagebrush habitats in the allotment. They were observed in the early morning at all of the native sites surveyed.

Calliope hummingbird. Calliope hummingbirds have not been confirmed in this allotment. However, this species is likely to be present in the riparian shrub and aspen habitats associated with Three Creek.

Willow flycatcher. This species has not been confirmed in the allotment. However, the riparian shrub and aspen community along Three Creek is suitable for this species.

Redband trout are known to be present in Three Creek. In the early 1980's, redband trout were present in Three Creek within this allotment. Brook trout were also reported to be present. Redband trout may move upstream during times when water levels decline and water temperatures increase.

Broadleaf fleabane. Broadleaf fleabane is know to occur just north of the Nevada State Line and is expected to occur in the Nevada portion of the allotment. Livestock grazing does not directly threaten this species, but habitat destruction by related roads and water developments has occurred to a small degree.

Slickspot peppergrass. Slickspot peppergrass is not known to occur in this allotment, and only 16 acres of suitable habitat occurs. Threats to this species include degradation of slickspots and surrounding area habitat, trampling from livestock, and weed invasion.

C. Guidelines for Grazing Management

Per the *Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management,* the following Guidelines need to be implemented to promote significant progress toward the Standards:

> Guideline 4 – Implement grazing management practices that provide periodic rest or deferment during critical growth stages to allow sufficient regrowth to achieve good plant vigor and adequate vegetative cover.
>
> Guideline 5 – Maintain or promote grazing management practices that provide sufficient residual vegetation to improve, restore, or maintain healthy riparian-wetland functions and structure for energy dissipation, sediment capture, ground water recharge, streambank stability, and wildlife habitat appropriate to site potential.
>
> Guideline 7 – Apply grazing management practices to maintain, promote, or progress toward appropriate stream channel and streambank morphology and functions. Adverse impacts due to livestock grazing will be addressed.

V. Conclusions

All indicators for the applicable Standards for Rangeland Health are being met in the allotment for Standard 1 (Watershed), Standard 4 (Native Plant Communities), and Standard 5 (Seedings). All indicators are not being met for Standard 2 (Riparian/Wetlands), Standard 3 (Stream Channel/Floodplain), Standard 7 (Water Quality), and Standard 8 (Special Status Species [redband trout]).

VI. Consultation

Kip Gould, Permittee
Jim Klott, Wildlife Biologist
Arnold Pike, Range Conservationist
Sheri Hagwood, Botanist
Max Yingst, Recreation
John Ash, NRS – Climate Data, Trend and Water Quality
Jeff Ross, Archeologist
Clare Josaitis, Natural Resource Specialist

VII. Recommendations

Conduct Ecological Site Inventory of those acres previously determined to be in poor condition to quantify current status. Seed native shrubs, grasses and forbs into poor condition ecological sites and rest to ensure establishment of the seeded plants. This would result in improvement of poor condition range.

Maintain 1025 acres of existing vegetation improvements (375 and 650 acres in MUAs 12 and 15, respectively). Restore or improve remaining non-native seedings to native vegetation communities.

Maintain existing upland game bird nesting and cover habitats.

Maintain current permitted use at 797 AUMs. While production studies show a slightly less amount of AUMs, the upland vegetation is meeting the indicators Rangeland Health Standards 1 (watershed), 4 (native vegetation) and 5 (seeded vegetation) and the condition is meeting RMP objectives. This level of allocation level is resulting in an expected utilization of less than 40% at key areas in Pastures 2, 3, 4 and 5 and less than 50 percent in Pasture 1.

Manage for light utilization levels (up to 40%) in native pastures in order to maintain the existing native communities. Under the forage allocation proposed, a portion of the forage production would be allocated to watershed and wildlife, and would maintain the native plant communities and provide habitat for wildlife.

Manage for moderate utilization levels (up to 50 percent) in pastures predominately seeded to intermediate wheatgrass.

Monitor native grass areas reverting to sagebrush to ensure re-establishment of big game habitat and upland game bird nesting and cover habitat. Restore sagebrush into the allotment where necessary to improve habitat for sage grouse and other wildlife species as well as water cycling. Allow no more than 50% frequency of nipping on current year leaders on key woody species*.

Implement bank alteration and stubble height standards for riparian zones and wetlands.

Ensure that any water troughs are fitted with correctly installed and functioning wildlife escape ramps as required by the RMP. Water should be provided in all troughs from May through October, even though livestock are not present in the pastures.

Ensure all fences conform to BLM standards for wire spacing to minimize adverse impacts to wildlife. Allotment boundary fences should have no more than 4 strands, whereas pasture fences should have 3 strands. The top wire should not exceed 40 inches (4 strand fence) and 38 inches (3 strand fence). The bottom wire should be barbless in antelope habitat.

Salting should not occur within 0.25 miles of perennial streams to protect cultural resources.

Range improvement projects should not occur where broadleaf fleabane populations are known to exist, in order to protect this Nevada sensitive plant species.

*Note: 50% use on key woody species is not allocated to livestock. Use is expected to be low except for during the winter if snow covers herbaceous vegetation. Crucial mule deer winter range is present in the allotment.

Appendix II.

1. Water Temperatures (°C) Summary Report for Upper Three Creek

	1998			1999*			2 Year Ave		
	Ave	Ave. Max	Ave. Min	Ave	Ave. Max	Ave. Min	Ave.	Ave. Max.	Ave. Min.
June	9.3	10.7	7.9	9.9	10.8	9.1	9.6	10.7	8.5
July	12.5	14.7	10.7	10.5	11.0	10.2	11.5	12.9	10.5
Aug.	12.9	15.6	10.9	11.4	11.4	11.3	12.2	13.5	11.1
Sept.	11.9	13.7	10.4	10.6	10.7	10.6	11.3	12.2	10.5
Sept.	8.5	9.9	7.4	9.3	9.3	9.3	8.9	9.6	8.3

* - Data for the months of Aug, Sept and Oct of 1999 is suspected to be inaccurate possibly because hobo was probably out of the water during these months as a result of the creek being dry.

2. Temperature Extremes (Highs/Lows) for Three Creek

Years	1998		1999		Extm. Aves.	
	Hi's	Lo's	Hi's	Lo's	Hi's	Lo's
June	12.0	7.0	11.7	7.2	11.8	7.1
July	16.4	9.1	11.4	11.1	13.9	10.1
Aug.	17.0	9.4	11.7	11.1	14.4	10.3
Sept.	16.7	7.8	11.7	9.7	14.2	8.8
Oct.	12.2	5.5	10.0	8.4	11.1	6.9

3. Three Creek Summary Report for Other Water Quality Attributes

Years	1998 Ave.	1999 Ave.	2 Yr. Ave.
DO (mg/l)	6.4	9.6	8.0
%DO	54.7	87.2	70.9
pH	7.3	7.9	7.6
Sp. Cond (uS/cm)	63.8	55.2	59.5
TDS (g/l)	.041	.035	.038
Nitrates (mg/l)			N/A
T. Phos. (mg/l)			N/A
F. Coli. (cfu/100ml)^			N/A

n/a – not applicable